

What is claimed is:

1. A herbicidal synergistic composition comprising as active ingredient a mixture of
  - a) pyribenzoxim and
  - b) a synergistically effective amount of at least one compound selected from the compounds of the group mesotrione, benzobicyclon, benzofenap, pyraflufen-ethyl, beflubutamid, cafenstrole, dimethametryn, clomeprop, prometryn, simetryn, trifloxysulfuron, sulfosulfuron, N-[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]-2-(2-fluoro-1-methoxy-acetoxy-n-propyl)pyridine-3-sulfonamide, S-metolachlor, alachlor, metamifop, 2,2-dimethyl-propionic acid 8-(2,6-diethyl-4-methyl-phenyl)-9-oxo-1,2,4,5-tetrahydro-9H-pyrazolo[1,2-d][1,4,5]-oxadiazepin-7-yl ester, isoxachlortole, chlomethoxyfen, fomesafen, halosafen, lactofen, oxyfluorfen, fluazolate, benzfendizone, cinidon-ethyl, flumiclorac-pentyl, flumioxazin, azafenidin, pentoxazone, profluazol, flufenpyr-ethyl, pyraclonil, pyriftalid, bispyribac-sodium, pyriothiobac-sodium, pyriminobac-sodium, clodinafop, pretilachlor, quinclorac, pyrazolynate, molinate, thiobencarb and mefenacet.
2. A herbicidal synergistic composition according to claim 1, comprising as active ingredient a mixture of
  - a) pyribenzoxim and
  - b) a synergistically effective amount of at least one compound selected from the compounds of the group benzobicyclon, benzofenap, pyraflufen-ethyl, beflubutamid, cafenstrole, dimethametryn, clomeprop, trifloxysulfuron, N-[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]-2-(2-fluor-1-methoxy-acetoxy-n-propyl)pyridine-3-sulfonamide, S-metolachlor, alachlor, metamifop, 2,2-dimethyl-propionic acid 8-(2,6-diethyl-4-methyl-phenyl)-9-oxo-1,2,4,5-tetrahydro-9H-pyrazolo[1,2-d][1,4,5]oxadiazepin-7-yl ester, isoxachlortole, chlomethoxyfen, fomesafen, halosafen, lactofen, oxyfluorfen, fluazolate, benzfendizone, cinidon-ethyl, flumiclorac-pentyl, flumioxazin, azafenidin, pentoxazone, profluazol, flufenpyr-ethyl, pyraclonil, pyriftalid, bispyribac-sodium, pyriothiobac-sodium and pyriminobac-sodium.
3. A method of controlling undesired plant growth in crops of useful plants, which comprises allowing a herbicidally effective amount of a composition according to claim 1 to act on the crop plant or the locus thereof.

4. A method according to claim 3, wherein the crop plant is rice.

5. A herbicidal synergistic composition comprising as active ingredient a mixture of

a) pyribenzoxim and

b) a synergistically effective amount of at least one compound selected from the compounds of the group S-metolachlor, alachlor, metamifop, 2,2-dimethyl-propionic acid 8-(2,6-diethyl-4-methyl-phenyl)-9-oxo-1,2,4,5-tetrahydro-9H-pyrazolo[1,2-d][1,4,5]oxadiazepin-7-yl ester, isoxachlortole, chlomethoxyfen, fomesafen, halosafen, lactofen, oxyfluorfen, fluazolate, benzfendizone, cinidon-ethyl, flumiclorac-pentyl, flumioxazin, azafenidin, pentoxazone, profluazol, flufenpyr-ethyl, pyraclonil, pyriftalid, bispyribac-sodium, pyriathiobac-sodium, pyriminobac-sodium, clodinafop, fenoxaprop, cyhalofop, quizalofop, clethodim, sethoxydim, pretilachlor, quinclorac, pyrazolynate, molinate, thiobencarb and mefenacet, and

c) an amount, effective for herbicide antagonism, of a compound selected from the compounds benoxacor, fenclorim, dichlormid and mefenpyr-diethyl, excluding the mixtures of pyribenzoxim and fenoxaprop and fenclorim, pyribenzoxim and fenoxaprop and dichlormid, pyribenzoxim and fenoxaprop and mefenpyr-diethyl, pyribenzoxim and cyhalofop and fenclorim, pyribenzoxim and cyhalofop and dichlormid, pyribenzoxim and cyhalofop and mefenpyr-diethyl, pyribenzoxim and quizalofop and fenclorim, pyribenzoxim and quizalofop and dichlormid, pyribenzoxim and quizalofop and mefenpyr-diethyl, pyribenzoxim and clethodim and fenclorim, pyribenzoxim and clethodim and dichlormid, pyribenzoxim and clethodim and mefenpyr-diethyl, pyribenzoxim and sethoxydim and fenclorim, pyribenzoxim and sethoxydim and dichlormid, and pyribenzoxim and sethoxydim and mefenpyr-diethyl.

6. A herbicidal synergistic composition according to claim 5, comprising as active ingredient a mixture of

a) pyribenzoxim and

b) a synergistically effective amount of at least one compound selected from the compounds of the group S-metolachlor, alachlor, metamifop, 2,2-dimethyl-propionic acid 8-(2,6-diethyl-4-methyl-phenyl)-9-oxo-1,2,4,5-tetrahydro-9H-pyrazolo[1,2-d][1,4,5]oxadiazepin-7-yl ester, isoxachlortole, chlomethoxyfen, fomesafen, halosafen, lactofen, oxyfluorfen, fluazolate, benzfendizone, cinidon-ethyl, flumiclorac-pentyl, flumioxazin, azafenidin, pentoxazone, profluazol, flufenpyr-ethyl, pyraclonil, pyriftalid, bispyribac-sodium, pyriathiobac-sodium, pyriminobac-sodium, clodinafop, fenoxaprop, cyhalofop, quizalofop, clethodim and sethoxydim, and

c) an amount, effective for herbicide antagonism, of a compound selected from the compounds benoxacor, fenclorim, dichlormid and mefenpyr-diethyl, excluding the mixtures of pyribenzoxim and clodinafop and fenclorim, pyribenzoxim and clodinafop and dichlormid, pyribenzoxim and clodinafop and mefenpyr-diethyl, pyribenzoxim and fenoxaprop and fenclorim, pyribenzoxim and fenoxaprop and dichlormid, pyribenzoxim and fenoxaprop and mefenpyr-diethyl, pyribenzoxim and cyhalofop and fenclorim, pyribenzoxim and cyhalofop and dichlormid, pyribenzoxim and cyhalofop and mefenpyr-diethyl, pyribenzoxim and quizalofop and fenclorim, pyribenzoxim and quizalofop and dichlormid, pyribenzoxim and quizalofop and mefenpyr-diethyl, pyribenzoxim and clethodim and fenclorim, pyribenzoxim and clethodim and dichlormid, pyribenzoxim and clethodim and mefenpyr-diethyl, pyribenzoxim and sethoxydim and fenclorim, pyribenzoxim and sethoxydim and dichlormid, and pyribenzoxim and sethoxydim and mefenpyr-diethyl.

7. A herbicidal composition comprising as active ingredient a mixture of

a) pyribenzoxim and

b) an amount, effective for herbicide antagonism, of a compound selected from the compounds benoxacor, fenclorim, dichlormid and mefenpyr-diethyl.

8. A method of controlling undesired plant growth in crops of useful plants, which comprises allowing a herbicidally effective amount of a composition according to claim 5 to act on the crop plant or the locus thereof.

9. A method according to claim 8, wherein the crop plant is rice.

10. A method of controlling undesired plant growth in crops of useful plants, which comprises allowing a herbicidally effective amount of a composition according to claim 7 to act on the crop plant or the locus thereof.

11. A method according to claim 7, wherein the crop plant is rice.